

# Barrington

**Department of Building & Planning**  
200 South Hough Street \* Barrington, IL 60010  
Phone 847-304-3460 \* Fax 847-381-1056

## GENERAL INSPECTION INFORMATION

**All inspection requests, with the exception of water meter installation, must be scheduled with the Department of Building & Planning at 847-304-3460.**

- Inspections for the Department of Building & Planning require 24-hour notice.
- Inspections for Plumbing for the Department of Building & Planning require 24-hour notice and are scheduled on Tuesdays and Thursdays, after 3:30 p.m. only.
- Inspections for the Department of Public Works require 48-hour notice.
- Water meter installation inspections are scheduled through the Department of Public Works at 847-381-7903.
- Inspections for the Barrington Fire Department require 48-hour notice.
- Commonwealth Edison will not connect electrical power unless the Village of Barrington has inspected and approved the electrical service installation and notified them of the approval. It is the responsibility of the owner/contractor to request service connections from Commonwealth Edison.

### **Department of Building & Planning**

(847) 304-3460

Jim Wallace, Director

Terry Dietz, Senior Building Inspector

Bill Spencer, Inspector

### **Department of Public Works**

(847) 381-7903

Dennis Burmeister, Assistant Director

Mark Werksman, Assistant Director

Phil Freund, Utility Supervisor

Ralph Kuhlman, Streets Supervisor

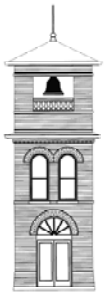
Frank Pilch, Engineer

Mike Szymanski, Forester

### **Barrington Fire Department**

(847) 304-3600

Lieutenant Jim Feit, Fire Prevention Officer



Village of

# Barrington

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## LOCATING UNDERGROUND UTILITY SERVICES

- Before starting any construction activity in the Village of Barrington you must **call J.U.L.I.E. at 800-892-0123 for location of underground utilities.**
- All requests for underground utility locates must be made 48 hours prior to construction of excavation.

PLEASE NOTE: J.U.L.I.E. will not locate private, secondary services for commercial structures.



# **Village of Barrington**

## **Construction Codes**

January 13, 2003

### **BUILDING**

2000 International Building Code with Village amendments

2000 International Residential Code with Village amendments

2000 International Energy Conservation Code with Village amendments

2000 International Fuel Gas Code with Village amendments

### **ELECTRICAL**

1996 National Electric Code with Village amendments

### **FIRE**

2000 International Fire Code with Village amendments

### **MECHANICAL**

2000 International Mechanical Code with Village amendments

### **PLUMBING**

1998 State of Illinois Plumbing Code with Village amendments



# VILLAGE OF BARRINGTON

## Permit Fees

<u>Type of Work</u>	<u>Basic Fees</u>	<u>Plan Review Fee</u>	<u>Total</u>
1. Addition	--see formulae below--		varies*
2. Air conditioner	45 building	50	95
3. Deck	45 building	50	95
4. Demolition	4 per 100sq. ft. (or min. fee)	50	varies*
5. Detached garage (residential)	130 building	50	240
	45 electrical (Chapter 7 Barrington Village Code)		
	15 certificate of occupancy		
6. Driveway (residential, new/resurface)	45 driveway (Ch. 20 BVC)	50	95*
7. Driveway (non-residential)	65 driveway (Ch. 20 BVC)	50	115*
8. Electrical Service Upgrade	30 electrical (Ch. 7 BVC)	50	80
9. Electrical Work	50 minimum (Chapter 7 Barrington Village Code)		varies*
10. Elevator (new/remodel)	110 elevator	--min. 200 escrow**--	varies*
11. Fence	45 fence	50	95
12. Fire alarm	90 building	50**	140**
13. Fire sprinklers	110 building	50**	160**
14. Fireplace/wood stove	45 building	50	95
15. Hood & duct extinguishing system	90 building	50**	140**
16. Moving a structure	165 building	50	215*
17. New buildings and structures	--see formulae below--		varies*
18. Parking area (non-residential)			
Less than 30,000 sq. ft.	30 building	50	80*
30,000 sq. ft. or greater	---	--site development escrow required**--	varies*
19. Patio/service walk (residential)	45	50	95
20. Plumbing - for authority/further information:	-- see Chapter 17, Barrington Village Code		
21. Remodeling	--see formulae below--		varies*
22. Roofing/reroofing	45 building	50	95
23. Sewer/water (emergency repair)	0	0	0*
24. Sewer/water (new/non-emergency)	--see Chapter 24, Barrington Village Code--		varies*
25. Sewer disconnection	45	50	95
26. Shed (residential)	45 building	50	95
27. Siding/residing (residential)	45	50	95
28. Signs/awnings--Illuminated	70 sign (Ch. 19 BVC)	50	120*
	20 electrical (Ch. 7 BVC)		
29. Signs/awnings--Non-illuminated	50 sign (Ch. 19 BVC)	50	100*
30. Swimming pool (above ground)	45 building	50	125*
	30 electrical (Ch. 7 BVC)		
31. Swimming pool (in-ground)	105 building	50	205*
	30 electrical (Ch. 7 BVC)		
	20 plumbing (Ch. 17 BVC)		
32. Underground tank removal	60 site restoration inspect.	50	110*
33. Water disconnection	-- see Chapter 24, Barrington Village Code--		
34. Water heater	45 plumbing (Ch. 17 BVC)	50	95



35. Minimum building fee for permits	45 building
36. Minimum plan review fee for permits	50 plan review
37. Preliminary/special inspection	35 per inspection
38. Re-inspection (more than 2 of same type)	35 per re-inspection
39. Certificate of Occupancy	15
40. Temporary Certificate of Occupancy	100
41. Starting work without permit	50% of total permit fees or \$500, whichever is less
42. Technology fee	20
(for work with a scaled valuation of \$10,000.00 or more)	

\* Work valued over \$5,000.00 requires a cash bond. See Section 108.2.1 Barrington Building Code.

Work involving the public right-of-way also requires escrow or bond deposits.

\*\* Escrow deposit required for plan review/site inspection.

New construction and alterations: The building fee for permits shall be based on the scaled cost of construction and shall be determined under the following schedule. Alterations and remodeling shall be determined at the same scaled cost as for new construction.

<u>Type of Structure (Use Group)</u>	<u>Scaled Construction Cost</u>	
Assembly	\$75.00	per square foot
Business	\$70.00	per square foot
Educational	\$65.00	per square foot
Factory, Industrial	\$35.00	per square foot
High-hazard	\$35.00	per square foot
Institutional	\$100.00	per square foot
Mercantile	\$70.00	per square foot
Residential (multi-family)	\$70.00	per square foot
Residential (single family)	\$75.00	per square foot
Storage, Utility	\$35.00	per square foot
Unfinished basements (all use groups)	\$8.00	per square foot
Decks, patios, etc.	\$9.00	per square foot

Building fee for new structures: For each one thousand dollars (\$1,000.00) scaled cost of construction, or fraction thereof, the building fee shall be eight dollars (\$8.00).

Building fee for remodeling, additions and alterations: For the first one thousand dollars (\$1,000.00) scaled cost of construction, or fraction thereof, the building fee shall be twenty-two dollars (\$22.00). For each additional one thousand dollars (\$1,000.00) scaled cost of construction, or fraction thereof, the building fee shall be eight dollars (\$8.00).

Plan review fee for new structures, remodeling, additions and alterations:

<u>Structure Size</u>	<u>Plan Review Fee</u>
1,000 square feet or less	\$50.00
1,001 to 3,000 square feet	\$100.00
More than 3,000 square feet	\$100.00, plus \$50.00 per hour over two hours







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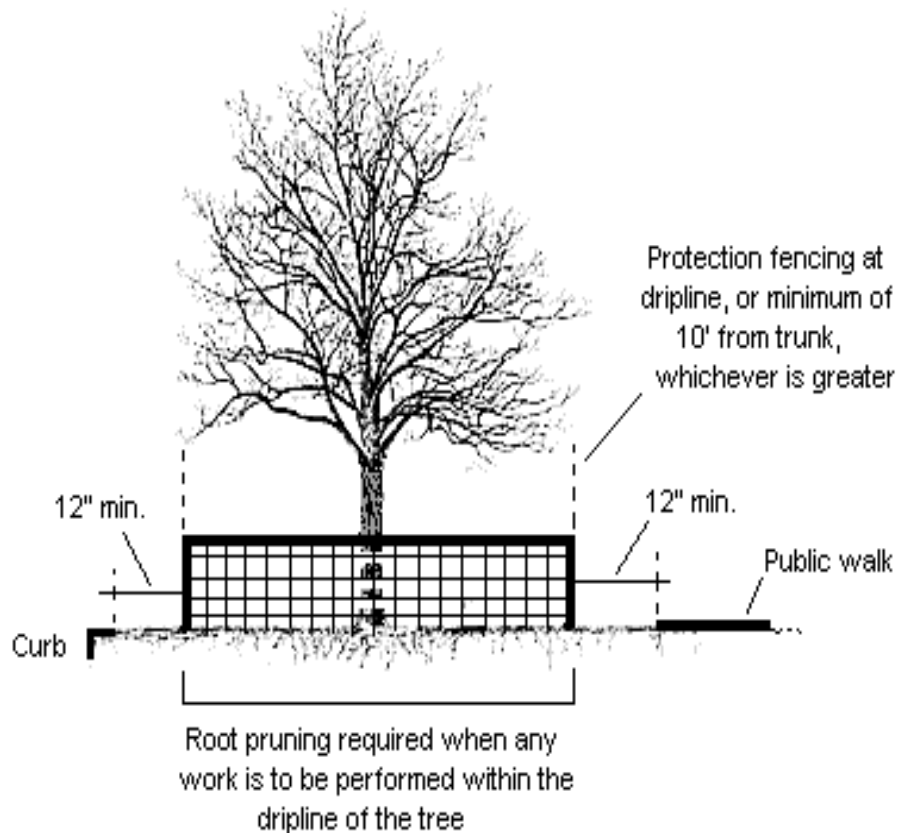
## **PROTECTION OF TREES AND SHRUBS DURING CONSTRUCTION**

Every effort shall be made by the building permit applicant, when working near trees and shrubs, to preserve those trees and shrubs from harm. No trees or shrubs shall be removed unless such removal is indicated on the plans and authorized by the Village Forester of the Village of Barrington. The contractor shall be responsible for damage to or loss of any tree or shrub not specifically designated for removal. The contractor shall take all steps to protect said trees and shrubs.

Whenever trees not designated for removal interfere with normal excavation procedures, the following shall govern:

1. All trees not designated for removal shall be boxed, fenced or otherwise protected prior to commencement of work.
2. It shall be the responsibility of the building permit applicant to assemble and install this protection. The protection must be approved by the Village Forester or his designated representative, prior to commencement of work.
3. No protection device shall be removed without prior approval of the Village Forester or his designated representative.
4. There shall be no construction activity or storage of any material within the enclosure or within the dripline of any tree.
5. All trees to be preserved within the construction zone shall be trimmed and root pruned prior to any construction activity in order to lessen the impact of construction; i.e. curb and gutter replacement, inlet and catch basin replacement, street overlay, overhead clearance, etc. All equipment used for trimming and root pruning must be approved by the Village Forester or his designated representative.
6. Where required, all trees shall be welled and protected against change of grade.
7. During construction all trees with a six inch (6") DBH or less and all shrubs not specifically indicated for removal that are removed or damaged beyond repair as determined by the Village Forester or his designated representative, shall be replaced by the building permit applicant with plant material equivalent in size and species suitable for planting in that location.
8. The building permit applicant shall be liable for the assessed cost of any trees that are removed or damaged during construction, providing the trees are larger than six inches (6") in diameter and not specifically designated for removal. The assessment shall be determined by the Village Forester or his designated representative. A fine may be imposed and/or replacement of the damaged tree required, depending upon the extent of injury caused to each tree. No replacement tree shall have a diameter of less than three inches (3") or more than six inches (6") unless authorized by the Village Forester or his designated representative.

9. The building permit applicant shall see that all trees are planted in accordance with the most current guidelines set forth in the publication *"American Nurserymen Standards"*.
10. All trees not designated for removal, shall be inspected at the conclusion of the project to insure all trees are in good condition.





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## **SANITARY SEWER SERVICE INSTALLATION REQUIREMENTS**

### **GENERAL INFORMATION**

1. All water service, water tap and sanitary service construction work is governed by *Standard Specifications for Water and Sewer Main Construction in Illinois* (latest edition), unless otherwise specified.
2. A permit is required prior to any construction work on private property or Village of Barrington public rights-of-way. Please contact the Department of Building & Planning at 847/304-3460 for building permit information.
3. The contractor is responsible for supplying all necessary materials for connecting the sanitary service from the sanitary main to the building.
4. The sanitary sewer contractor shall be a licensed plumber in the State of Illinois.
5. Please notify J.U.L.I.E. at 800-892-0123 a minimum of 48 hours prior to any excavation.
6. In order to protect the public from any hazards during construction, the contractor is required to supply suitable lighting, signs and barricades. The Barrington Police Department is prepared to enforce this requirement.
7. All tree preservation requirements shall be complied with.

### **INSTALLATION OF SANITARY SERVICE**

1. Sanitary Taps  
All taps shall be cored with a coring machine directly into the sanitary main. A P.V.C. tapping saddle with stainless steel straps is required for connection to the sanitary main.
2. Approved Materials List
  - Materials and pipe sizes required for sanitary line installations are as follows:
    - 6" P.V.C. SDR-26 or Schedule 40
    - 6" Ductile Iron Pipe
    - 6" Cast Iron

- Through the foundation of the house, a minimum length of ten feet (10') of ductile iron, Class 52, six inch (6") pipe is required.
- "Band-Seal" or similar couplings shall be used in the connection of sewer pipe of dissimilar materials.
- A shear coupling shall be used in the connection outside of the foundation wall.
- Sanitary Sewer Pipe - PVC SDR 26, D-3212 ASTM, D-3034, ASTM, ductile iron pipe, Class 55, back and side yards or as requested by the Village of Barrington Director or Public Works
- Sanitary Manhole - Precast reinforced concrete, standard forty-eight inches (48") or four feet (4') in diameter.
- Sanitary Manhole Frame & Lid (in pavement) - In accordance with Section 604 of the *Standard Specifications for Water and Sewer* as manufactured by Neenah Foundry Company (R-1772) or East Jordan Iron Works, Inc. (no. 1022), gasketed lids marked "Sanitary".
- Sanitary Manhole Frame & Lid (in parkway) - In accordance with Section 604 of the *Standard Specifications for Water and Sewer* as manufactured by Neenah Foundry Company (R-1772) or East Jordan Iron Works, Inc. (no. 1022), gasketed lids marked "Sanitary".
- Sanitary Service Chimney Seal - All sanitary manholes shall receive an external chimney seal, manufactured by Cretex Specialty Products. **Approved equals only.**
- Sanitary Service - D-3034 gasketed wyes with 45° bend. Services deeper than six feet (6') shall use risers and riser adaptors or D-3034 tee wye. All services shall be six inches (6") in diameter.

3. Separate Trench

A minimum of ten feet (10') of horizontal separation from any water service or main is required.

4. Common Trench

A minimum of three feet (3') of horizontal separation and eighteen inches (18") of vertical separation from the water service is required.

5. Crossing/Perpendicular Trench

A minimum of eighteen inches (18") of separation is required. The sanitary service shall be encased in water main quality pipe for a distance of ten feet (10') on either side of the water service. Cleanouts shall be located just outside of the over-dig.

6. The deflection of pipe is not to exceed a forty-five degree (45°) bend.

7. The minimum depth of sanitary services shall be three feet (3') to the crown of the pipe.

8. Trench Bedding

- Four inches (4") to six inches (6") of washed stone bedding is required for sanitary services.

9. Trench Backfill

A minimum of twelve inches (12") of CA-6 crushed stone, one quarter inch (1/4") to one inch (1") in size, shall be required above all P.V.C. pipe. All sanitary sewers beneath proposed or existing utilities, pavements, driveways or sidewalks and for a distance of two feet (2') on either side of the same, shall be backfilled with CA-6 and thoroughly compacted in accordance with the *Standard Specifications for Water and Sewer Main Construction in Illinois* (latest edition) unless otherwise specified.

10. No Trenching Within Dripline of Parkway Trees

Absolutely no trenching will be allowed within the area known as the dripline of any parkway tree located in the public right-of-way. Should it become impossible, due to utility conflicts, to avoid construction within the dripline, the Village Forester shall be consulted prior to any excavation (refer to illustration ).

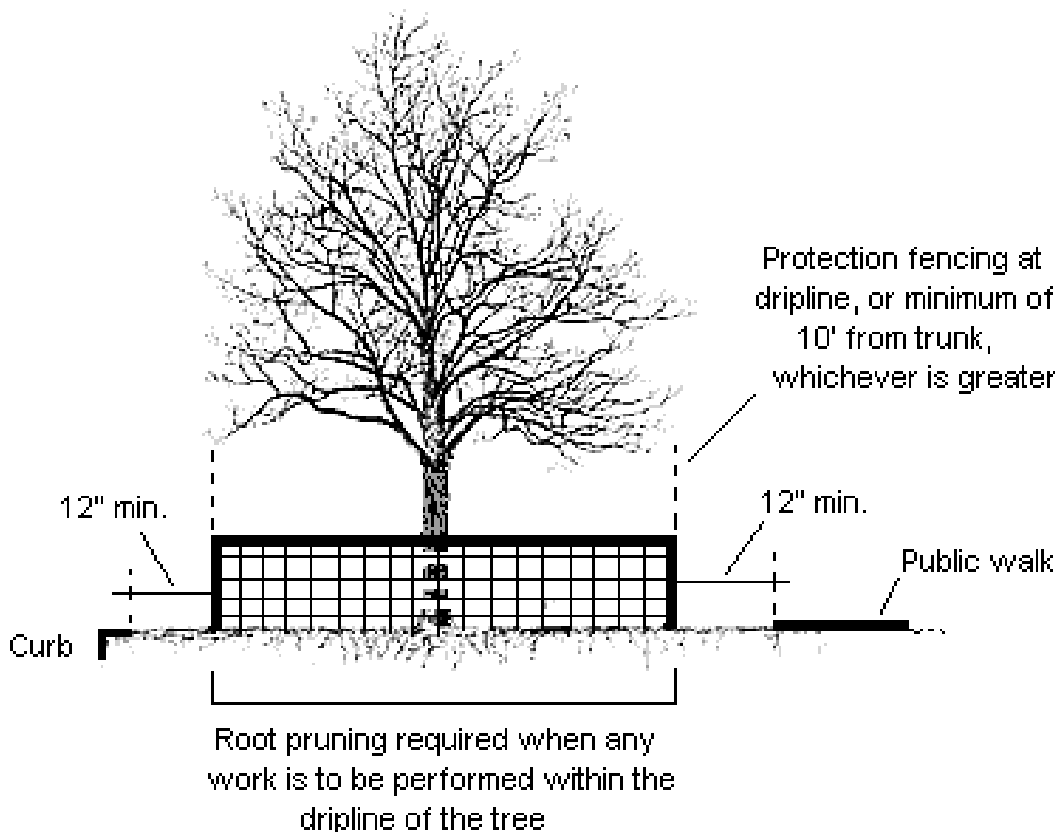
11. Driveway and/or Street Repair

Any street or driveway base removed by the contractor must be replaced with similar materials as indicated below:

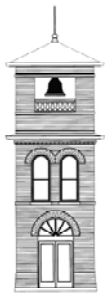
- Four inch (4") concrete removed - Replace with 4 inch ("4") concrete with one-half inch ( $\frac{1}{2}$ ") rods
- Six inch (6") asphalt removed - Replace with six inch (6") asphalt
- All concrete streets shall be repaired with concrete and should match the existing depth as follows: One half inch ( $\frac{1}{2}$ ") rods that are set four inches (4") in existing concrete at a spacing of two feet (2').
- All trenches in the right-of-way shall be replaced with either a temporary or permanent asphalt patch within one week of completing the excavation. Trench backfill will be unacceptable after the first week. Public Works or the Illinois Department of Transportation (IDOT) may require an immediate asphalt patch, depending on the location of the excavation.

NOTE

Inspections are required by the Department of Public Works for all underground utilities. All inspections require 48-hour notice and are scheduled through the Department of Building & Planning at 847/304-3460.







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## WATER SERVICE INSTALLATION REQUIREMENTS

### GENERAL INFORMATION

1. All water service, water tap and sanitary service construction work is governed by *Standard Specifications for Water and Sewer Main Construction in Illinois* (latest edition), unless otherwise specified.
2. A permit is required prior to any construction work on private property or Village of Barrington public rights-of-way. Please contact the Department of Building & Planning at 847/304-3460 for building permit information.
3. The contractor is responsible for supplying all necessary materials for connecting the sanitary service from the sanitary main to the building.
4. The water service contractor shall be a licensed plumber in the State of Illinois.
5. Please notify J.U.L.I.E. at 800-892-0123 a minimum of 48 hours prior to any excavation.
6. In order to protect the public from any hazards during construction, the contractor is required to supply suitable lighting, signs and barricades. The Barrington Police Department is prepared to enforce this requirement.
7. All tree preservation requirements shall be complied with.

### INSTALLATION OF WATER SERVICE

1. Water Taps
  - The contractor is responsible for the excavation of the existing water main.
  - The contractor is responsible for water taps (supervised and inspected by the Department of Public Works). One inch (1") taps shall be direct taps only. Larger taps shall use a stainless steel tapping sleeve.
  - The water main shall be tapped at an angle of forty-five degrees (45°).
  - The corporation stop shall be turned so that the "T" handle will be on the top.
  - Where new construction and/or demolition and reconstruction is proposed and there exists a substandard water service tap (i.e. less than one inch [1"] Type "K" copper or lead pipe service), it shall be the owner's/agent for the owner's responsibility to upgrade the water service to Village specifications per *Water, Sewers and Sewage Disposal*, Chapter 24, Division 2, Section 24-54 of the Barrington Village Code.



## 2. Approved Materials List

- Water Main Pipe - Ductile iron pipe, class 52, in accordance with *A.W.W.A. Standard C151, C-111 and C104* as manufactured by Clow Water Systems, water main shall be installed in accordance with A.W.W.A. C-600 and C-601. In other areas as directed by the Village of Barrington Director of the Department of Public Works, class 55, ductile iron pipe shall be installed.
- Water Valve Auxiliary Valve – American Flow Control, Waterous model A.F.C. 2500, ductile iron M. J., resilient wedge/open left, all stainless steel trim. **No substitutions or alternatives allowed.**
- Valve Vault – Precast reinforced concrete, seventy-two inches (72”) or six feet (6’) in diameter.
- Valve Vault Frame (in pavement) – In accordance with Section 604 of the Standard Specifications for Water and Sewer and as manufactured by Neenah Foundry Company (R-1712) or East Jordan Iron Works, Inc. (No. 1050), cover marked “*Water*”.
- Valve Vault Frame (in parkway) – In accordance with Section 604 of the Standard Specifications for Water and Sewer and as manufactured by Neenah Foundry Company (R-1772) or East Jordan Iron Works, Inc. (No. 1022), cover marked “*Water*”.
- Fire Hydrant – Waterous B-67-250, Breakaway three-way N.S.T. one (1) two and one half inch (2 ½”) vented cap, stainless steel bolts and nuts on the barrel section and shoe, five and one quarter inch (5 ¼”) valve opening, six inch (6”) M. J. Shoe. **No substitutions or alternatives allowed.**
- Fire Hydrant Extension – Fire hydrant extensions and parts to be manufactured by Waterous only. **No substitutions or alternatives allowed.**
- Water Main Fittings – Water main fittings shall be ductile iron mechanical joint in accordance with A.W.W.A. Standard C-153, and shall be American made with stainless steel trim.
- Valve Boxes – *Tyler 664-S* cast iron, three-piece box with *Adapter II* rubber stabilizer. Must be American made. To be used where valve vaults cannot be utilized because of conflicts with other utilities and conditions, to be approved by the Director of Public Works. One (1) alternate is allowed: The American Flow Control trench adaptor.
- Water Service – Water Services shall be of Type “K” copper, one inch (1”) minimum to two inches (2”) in diameter. Anything larger shall be ductile iron pipe. **No substitutions or alternatives allowed.**
- Corporation Stop – Corporation stops shall be as manufactured by Muller Company, model # H-15000, one inch (1”) in diameter, direct taps only. **Approved equals only.**
- Curb Valve – Curb valves shall be as manufactured by Mueller Company, model #15154, Minneapolis top thread. No alternatives allowed. **Approved equals only.**
- Curb Box – Mueller Company, model #H-10302, one and one half inches (1½”) in diameter, Minneapolis pattern base. No alternatives allowed. **Approved equals only.**
- Tapping Sleeve – FC-202 (Ford) used on one and one half inch (1½”) to two inch (2”) taps.
- Tapping Saddle – Smith Blair 317 nylon coat, double stainless steel strap used on one and one half inch (1 ½”) to two inch (2”) taps. **Approved equals only.**
- Copper to Copper Fittings – Mueller Company Model #H-15400. All flared coupling is required - no sweat joint or compression. **No substitutions or alternatives allowed.**

## 3. Separate Trench

A minimum of ten feet (10’) of horizontal separation from any sanitary service or main is required.

4. Common Trench

A minimum of three feet (3') of horizontal separation and eighteen inches (18") of vertical separation is required from the sanitary service.

5. Crossing/Perpendicular Trench

A minimum of eighteen inches (18") vertical separation between water and sanitary service is required. Installation of a water service under a sanitary service or under a sanitary drain with less than eighteen inches (18") of vertical separation is not permitted. (NOTE: The above requirements regarding vertical separation also apply to all storm drain installations).

Should it be impossible, due to utility conflicts, to maintain eighteen inches (18") of separation between the bottom of the water service and the top of the sanitary, the following procedure is required:

- Enclose water service in D.I.P. class 52 for ten feet (10') on either side of the sanitary  
OR
- Remove ten feet (10') of sanitary on either side of the water service and replace it with water main quality pipe.

6. Trench Bedding

Not required if laying water service on undisturbed ground. If bedding is necessary, four inches (4") to six inches (6") of CA-6 or wash stone #6 is required.

7. Trench Backfill

All water services beneath proposed or existing utilities, pavements, driveways or sidewalks, and for a distance of two feet (2') on either side of the same, shall be backfilled with CA-6 and thoroughly compacted in accordance with the standard specifications.

8. No Trenching Within Dripline of Parkway Trees

Absolutely no trenching will be allowed within the area known as the dripline of any parkway tree located in the public right-of-way. Should it become impossible to avoid construction within the dripline due to utility conflicts, the Village Forester shall be consulted prior to any excavation (refer to illustration).

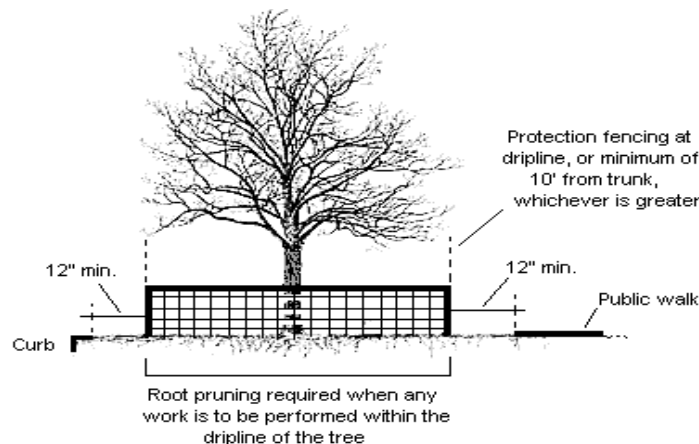
9. Driveway and/or Street Repair

Any street or driveway base removed by the contractor must be replaced with similar materials as indicated below:

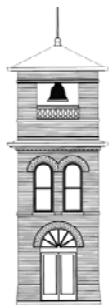
- Four inch (4") concrete removed - Replace with 4 inch (4") concrete with one-half inch (½") rods
- Six inch (6") asphalt removed - Replace with six inch (6") asphalt
- All concrete streets shall be repaired with concrete and shall match the existing depth as follows: One half inch (½") rods that are set four inches (4") in existing concrete at a spacing of two feet (2').
- All trenches in the right-of-way shall be replaced with either a temporary or permanent asphalt patch within one week of completing the excavation. Trench backfill will be unacceptable after the first week. The Department of Public Works or the Illinois Department of Transportation (IDOT) may require an immediate asphalt patch, depending on the location of the excavation.

## NOTE:

Inspections are required by the Department of Public Works for all underground utilities. All inspections require 48-hour notice and are scheduled through the Department of Building & Planning at 847/304-3460.







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## WATER METER & BACKFLOW PREVENTION REQUIREMENTS

### SERVICE ENTRY AND SEPARATION

1. Service Entry into Full or Partial Basement Area

The main shut-off valve shall be within twelve inches (12") upon entry into basement. The meter assembly span shall follow immediately after the spread and before the secondary shut off valve. The secondary valve shall be placed twelve inches (12") beyond the meter spread. (Refer to Illustration A).

2. Service Entry Into Normal Access Crawl Space

Service entry into a crawl space should be avoided when a partial basement is present.

➤ If the service must enter the crawl space area, it should enter as close as possible to the crawl space retaining wall. If not within one foot of the retaining wall, the following variation will be required on the standard installation:

- No valve shall be installed upon entry.
- Service line shall be directly connected to rigid copper and brought directly to within one foot of the crawl space retaining wall access panel. The rigid copper shall be properly affixed to the joists from entry point to access point.
- Piping shall be lowered to twelve inches (12") above the crawl space retaining wall. The sequence of valving and thermal expansion (as described in item #1 of this section) shall be installed to accommodate the water meter assembly.
- Should the crawl space be enclosed for purposes of basement finishing, doors or other approved means of access to the meter assembly shall be provided. (Refer to Illustration B).

3. Service Entry Into Limited Access Crawl Space

Limited access crawl is defined as a crawl space which is only accessible by an interior or exterior trap door.

- Upon entry into a limited access crawl, piping shall be changed to rigid copper, properly affixed to the joists and brought eighteen inches (18") above the floor of an above-grade furnace/utility room .
- Guidelines for meter assembly (as described in item #1 of this section) apply once the water service enters the utility/furnace room (Refer to Illustration C).
- Water meter assembly shall not be obstructed by furnace, water heater, water softener or any other equipment.

4. Slab Service Entry

Slab service entry shall be run as directly as possible from service tap to the point of entry in a furnace/utility room. The main shut-off valve shall be placed within eighteen inches (18") of the point of entry (Refer to Illustration D).

## METER ASSEMBLY REQUIREMENTS

### 1. Water Meter - Residential

The meter assembly for residential customers is provided by the Village of Barrington consisting of an approved meter and backflow device, for water use measurement and the protection of the potable water system.

- Properly installed cross connection control devices create a closed water system. Such systems shall have a properly sized thermal expansion tank located in the cold water supply, as near as possible to the water heater. Please note that expansion relief is the responsibility of the building permit applicant per Illinois Plumbing Code.
- The thermal expansion tank shall be located between the cold supply shut-off valve and the water heater (Refer to Illustration A-1).
- An expansion cylinder is required at the meter assembly. The cylinder shall be located after the meter spread and before the secondary shut-of valve.
- The expansion cylinder includes a tee, which is the service line size, by one half inch ( $\frac{1}{2}$ " ). Accordingly, the tee for a three-quarter inch ( $\frac{3}{4}$ " ) water service shall be  $\frac{3}{4}$ " x  $\frac{3}{4}$ " x  $\frac{1}{2}$ ". The tee for a one inch (1" ) water service shall be 1" x 1" x  $\frac{1}{2}$ ".
- Size and material requirements for expansion cylinders are as follows:
  - a) Diameter of cylinder piping - One inch (1")
  - b) Length of cylinder piping (40 gallon water heater) - Minimum of twelve inches (12")
  - c) Length of cylinder piping (50 gallon water heater) - Minimum of fifteen inches (15")

### 2. Water Meter – Residential with Lawn Irrigation System

This type of installation requires separation and protection as required by Illinois Plumbing Code. (Refer to Illustration E). Note: Auxiliary sources are not permitted to be physically connected with the Village water supply by any method.

### 3. Water Meter – Nonresidential/Commercial

All nonresidential customers will be responsible for the purchase of approved backflow protection devices conforming to A.S.S.E. Standard 1013.

### 4. R.P.Z. Devices

All devices shall have A.S.S.E. approval and all devices shall be installed horizontally.

- Domestic Services - Standard #1013
- Fire Services - Standard #1047

### 5. Water Meters - Spreads for $\frac{3}{4}$ " and 1" meters:

- Residential:  $\frac{3}{4}$ " Meter = 13" between  $\frac{3}{4}$ " female connections
- Residential: 1" Meter = 17  $\frac{1}{4}$ " between 1" female connections
- Commercial:  $\frac{3}{4}$ " Meter = 11  $\frac{1}{2}$ " between  $\frac{3}{4}$ " female connections (without dual check)
- Commercial: 1" Meter = 15" between 1" female connections (without dual check)

### 6. Grounding Jumper

A grounding jumper is required for all installations. The jumper shall be connected before the first valve of the meter assembly and after the second valve of the meter assembly.

7. Thinwall Conduit Installation for Remote Water Meter

Consideration should be given to the placement of the remote meter prior to the installation of interior drywall. The following are specifications for the installation of the remote meter:

- General Specifications - Wire for the remote meter shall be enclosed in thinwall conduit. Thinwall conduit shall be within six inches (6") of the meter assembly spread center, to the exterior location as specified. Thinwall conduit runs of forty feet (40') or more, or having more than four (4) bends, require the installation of a junction box. Thinwall size requirement is one half inch (1/2").
- Exterior Placement of Thinwall Conduit - Thinwall conduit is to be within three feet (3') of the front corner of the house, on either side, with a placement of five feet (5') above finished grade. Ideal placement is along trim boards if shutters or downspouts do not affect the placement. Should an unusual design or window arrangement exist, the Department of Public Works, Utility/Water Meter Division will authorize and document an alternative placement. This approval must be obtained prior to installation.
- Installations on front of structures are not desirable and require approval by the Utility Division prior to installation. "Front of Structure" is defined as the street side of the structure, or as specified by an address for corner lots and through lots. When there is an unusual placement of the structure on the lot, contact the Department of Public Works to authorize remote water meter location.





Village of

# Barrington

**Department of Building & Planning**  
200 South Hough Street \* Barrington, IL 60010  
Phone 847-304-3460 \* Fax 847-381-1056

## **FIRE SYSTEM BACKFLOW PREVENTION REQUIREMENTS**

Fire prevention backflow assemblies shall be factory approved and assembled. These devices shall carry the endorsement and approval from the *A.S.S.E. (American Society of Sanitary Engineering)*. Examples of approved devices are as follows:

- |    |          |   |
|----|----------|---|
| 1. | FEBCO    | 826 YD: 2 ½", 3", 4", 6", 8" & 10"  |
| 2. | WATTS    | 992 RPDA NRS RW and 992 RPDA OSY RW   |
| 3. | WILKINS  | 975 DA: 2 ½", 3"  |
| 4. | CONBRACO | 40-700, 40-70C, 40-70E, 40-70G: 3", 6", 8", 10". 40-70A: 4"   |
| 5. | AMES     | 5000SS: 2 ½", 3", 4", 6" with CONBRACO RP 2402040XL with ¾" CONBRACO<br>bypass 40204. 5000: 4", 6", 8", & 10". (Add KENNEDY shutoff to 4", 6" & 8") |

Certification is required for the fire prevention backflow assembly when the installation is complete and it is ready to be activated. Any fire prevention backflow assembly that is not approved by the Village of Barrington shall be replaced with an approved device.

All fire prevention backflow assemblies shall be installed horizontally and as indicated in Illustrations F, G and H. Access is required for testing and servicing of devices and shall be installed no more than five feet (5') above floor level.

Should there be questions regarding the above information, please contact the Village of Barrington Department of Public Works, Utility Division at 847/381-7903.







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## STORM SEWER SERVICE INSTALLATION REQUIREMENTS

### GENERAL INFORMATION

1. The *Standard Specifications for Water and Sewer Main Construction in Illinois*, current edition, shall govern all work unless otherwise specified.
2. A permit is required prior to any construction work in Village rights-of-way. Contact the Department of Building and Planning for all permit information at 847/304-3460.
3. Prior to any excavation, the building permit applicant must notify J.U.L.I.E. at 800/892-0123.
4. The storm sewer contractor shall be a licensed plumber in the State of Illinois.
5. The contractor is required to supply suitable lights, signs and barricades during the operation to protect the public from any hazards. The Barrington Police Department will enforce this requirement.
6. The Department of Public Works retains the right to deviate from these requirements as long as it is in the best interests of both the resident(s) and the Village.
7. The contractor shall be responsible for supplying all necessary materials for all storm connections from the building foundation to the main storm line.
8. Materials and pipe size allowed for storm service installation from the connection at the Village storm line to the foundation of the house:
  - 6" PVC SDR-35
  - 6" Ductile Iron Pipe

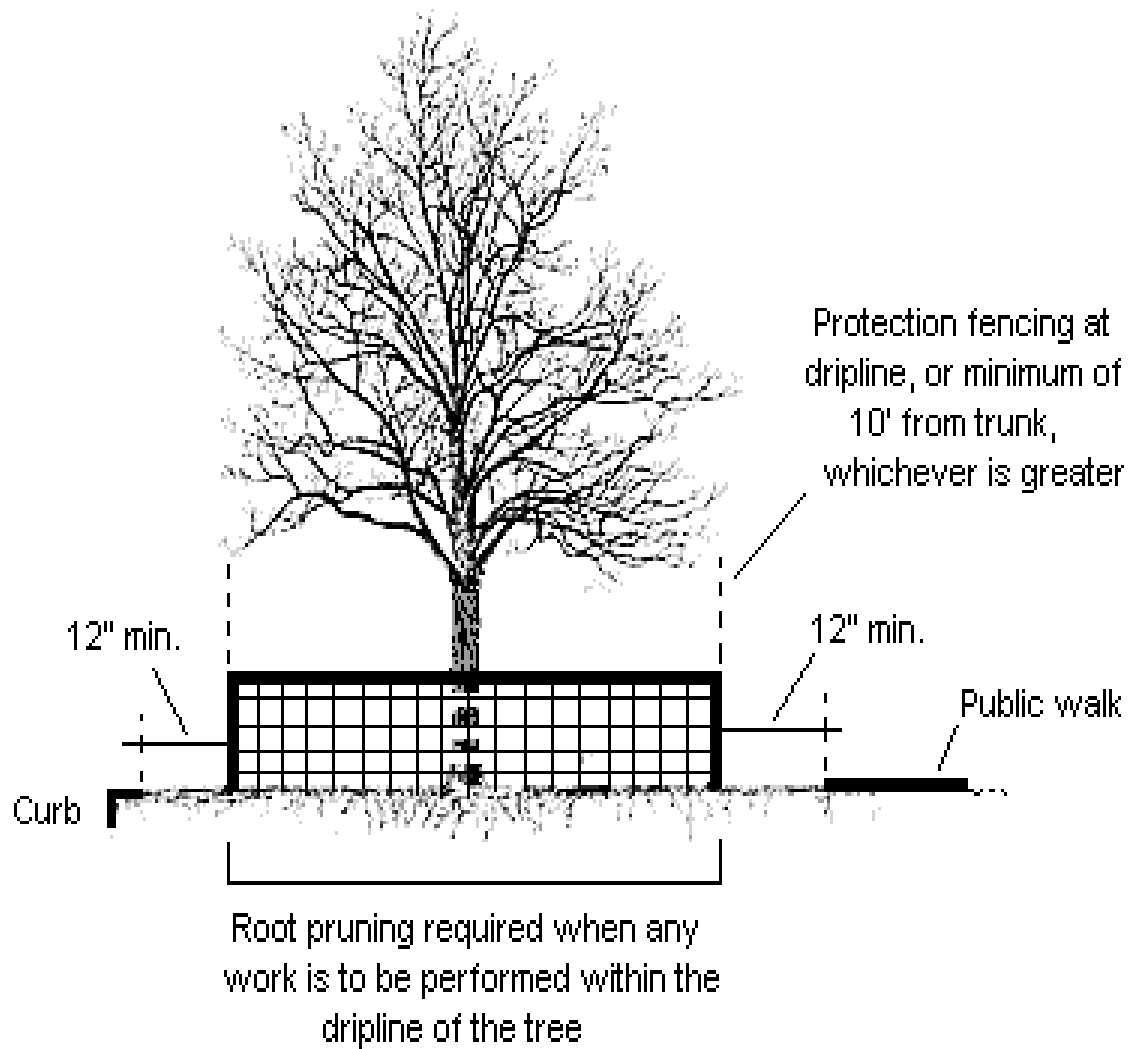
When connecting to an existing storm main or manhole by means other than an existing wye or tee, a circular saw cut of the receiving structure shall be made, using the shewer tap coring machine method.

## INSTALLATION

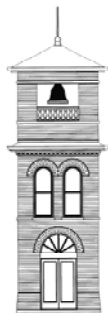
1. Separate Trench  
A minimum of ten feet (10') of horizontal separation from any water service or main
2. Common Trench  
A minimum of three feet (3') of horizontal separation and eighteen inches (18") of vertical separation from the water service
3. Crossing a Perpendicular Water Service Trench  
A minimum of eighteen inches (18") of vertical separation is required between storm and water service. Should there be a conflict with existing utilities and it is impossible to maintain eighteen inches (18") of separation, the storm service shall be encased in water main quality pipe for a distance of ten feet (10') on either side of the water service.
4. No Trenching Within Dripline of Parkway Trees  
Absolutely no trenching will be allowed within the area known as the dripline of any parkway tree located in the public right-of-way. Absolutely no trenching will be allowed within the area known as the dripline of any parkway tree located in the public right-of-way. Should it become impossible to avoid construction within the dripline due to utility conflicts, the Village Forester shall be consulted prior to any excavation (refer to illustration, page 3 of this section).
5. Trench Bedding  
All storm sewer services shall be installed on CA-6 crushed stone bedding, one quarter inch ( $\frac{1}{4}$ ") to one inch (1") in size with a minimum depth of six inches (6").
6. Trench Backfill  
A minimum of twelve inches (12") of CA-6 crushed stone, one quarter ( $\frac{1}{4}$ ") to one inch (1") in size, shall be required above all P.V.C. pipe. All storm sewers beneath proposed or existing utilities, pavements, driveways or public walks, and for a distance of two feet (2') on either side of the same, shall be backfilled with CA-6 and thoroughly compacted in accordance with the *Standard Specifications for Water and Sewer Main Construction in Illinois*, latest edition.
7. Driveway and/or Street Repair  
Any street or driveway base removed by the contractor shall be replaced with similar materials, subject to approval of the Department of Public Works.
  - Four inch (4") concrete removed  
Replace with 4 inch ("4") concrete with one-half inch ( $\frac{1}{2}$ ") rods
  - Six inch (6") asphalt removed  
Replace with six inch (6") asphalt
8. All footing drains shall discharge to an existing storm sewer or manhole or to a retention pond, when available. If not available, discharge shall be to a location approved by the Department of Public Works.
9. All downspouts shall either discharge no closer than ten (10) feet from the property line or shall be connected to an adjacent storm sewer. No pipes shall convey down spout run off onto adjacent property. If the downspouts have pipes connected to them, these pipes shall be connected to the storm sewer. Inspection of the connection to the Village storm sewer is required.

### NOTE:

Inspections are required by the Department of Public Works for all underground utilities. All inspections require 48-hour notice and are scheduled through the Department of Building & Planning at 847/304-3460.







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## UNDERGROUND SPRINKLER SYSTEM INSTALLATION REQUIREMENTS

Underground sprinkler systems shall not be installed within the Village of Barrington rights-of-way, including parkways. This is the area between the street and the front property line. The Village of Barrington right-of-way includes the public sidewalk. To determine the exact location of your front property line, a plat of survey is needed.

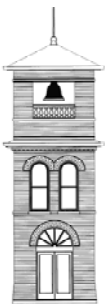
The right-of-way is reserved for Village of Barrington utilities such as water service, sewer service or other utilities including electric lines, gas mains, telephone and cable lines. In order to avoid damaging any of these utilities, you are required to contact J.U.L.I.E. for utility locates prior to the installation of an underground sprinkler system.

You are required to obtain an approved building permit prior to the installation of an underground sprinkler system. **Please note that the building permit applicant is required to comply with the Illinois State Plumbing Code requirements for backflow prevention (Refer to Illustrations I, J and K).**

Standard building permit submittal procedures shall apply:

- Completed building permit application,
- Five copies of the contractor's proposal or written scope of work
- Five copies of the plat of survey **with the sprinkler heads and control boxes depicted on the survey.**





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## **ELECTRONIC OR UNDERGROUND DOG FENCE INSTALLATION REQUIREMENTS**

Electronic or underground dog fences shall not be installed within the Village of Barrington rights-of-way, including parkways. This is the area between the street and the front property line. The Village of Barrington right-of-way includes the public sidewalk. To determine the exact location of your front property line, a plat of survey is needed.

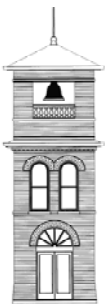
The right-of-way is reserved for Village of Barrington utilities such as water service, sewer service or other utilities including electric lines, gas mains, telephone and cable lines. In order to avoid damaging any of these utilities, you are required to contact J.U.L.I.E. for utility locates prior to the installation of an electronic or underground dog fence.

You are required to obtain an approved building permit prior to the installation of an electronic or underground dog fence. Standard building permit submittal procedures shall apply:

- Completed building permit application,
- Five copies of the contractor's proposal or written scope of work
- Five copies of the plat of survey **with the fence depicted** on the document.







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## **GENERAL LANDSCAPE RESTRICTIONS AND REQUIREMENTS**

In order for the Village of Barrington Department of Public Works to maintain the underground facilities and to provide the Barrington Fire Department with unfettered access to fire hydrants, it is necessary to have certain planting restrictions for fire hydrants and other Village facilities.

It is important to determine the mature size of the vegetation being considered for planting and its proximity of placement when the vegetation is adjacent to village facilities. When planting landscape materials or installing decorative berms, no person shall, in any manner, obstruct the access to any stopcock (water shut off box) fire hydrant, water valve, storm sewer or sanitary sewer manhole or place any lumber, brick, building material, other article or hindrance whatsoever within eight feet (8') of the same, or to in any manner hinder, delay or obstruct the members of the fire department in reaching the same. In addition, it is unlawful for any person, in any manner, to interfere with or obstruct the members of the fire department in reaching the same.

Should you have any questions regarding placement, please contact the Village of Barrington Department of Public Works at 847/381-7903.

## **MAILBOX INSTALLATION REQUIREMENTS**

The following specifications are in accordance with United States Postal Regulations:

- The face of the mailbox shall be one foot (1') behind the back of the curb (where curbs exist) and two feet (2') from the edge of the pavement on streets without curb and gutter.
- The bottom of the mailbox shall be between thirty-eight (38) and forty-two (42) inches from the top of the curb (where curb exists) and the same from the top of the pavement in areas without curb and gutter.
- Mailboxes shall not be constructed of brick and mortar and shall be on a post that is considered break away, to avoid unnecessary damage or injury should the mailbox be struck by a motorized vehicle.  
(Refer to Illustration L)





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## **PUBLIC WALK CONSTRUCTION STANDARDS & REQUIREMENTS**

### GENERAL INFORMATION

A building permit is necessary prior to any construction on Village right-of-ways. Contact the Department of Building & Planning for submittal requirements.

Prior to any excavation, the building permit applicant is required to notify all public and private utilities.

The building permit applicant is required to supply suitable lights, signs and barricades during the operation to protect the public from any hazard. This requirement is enforced by the Barrington Police Department.

The Department of Public Works may deviate from these requirements as long as the deviation(s) are in the best interest of both the property owner and the Village.

The building permit applicant is responsible for supplying all necessary material for the replacement or new installation of a concrete walk.

### SPECIFICATIONS

Applicable sections of the *Standard Specifications for Road and Bridge Construction*, latest edition, published by the Illinois Department of Transportation, shall govern the construction of public walks in the Village of Barrington. In cases of conflict between the above specifications, Village specifications and project plans, the latter will take precedence.

### GENERAL QUALITIES

Concrete used in the construction of public walks and related construction shall be as follows:

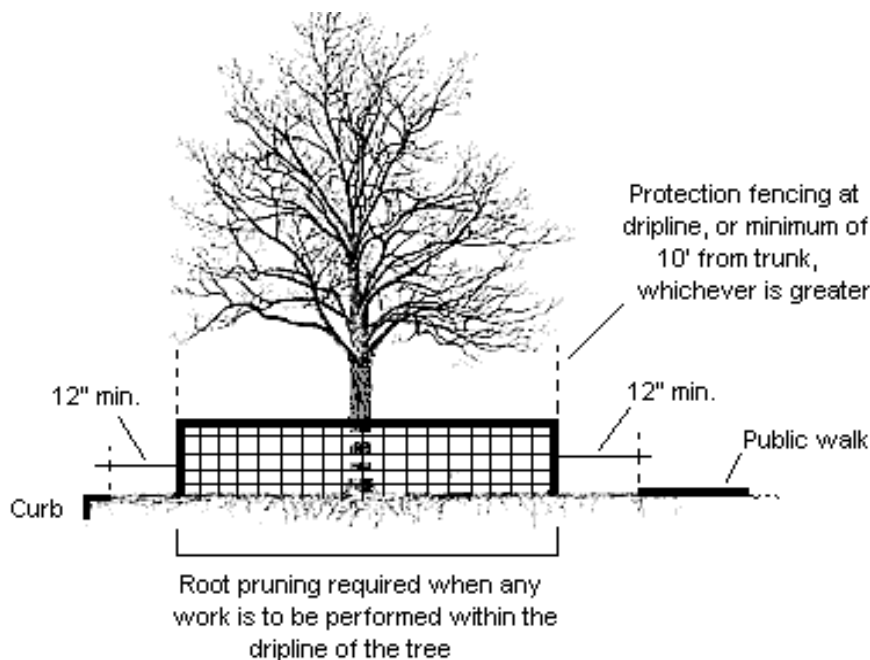
- |    |                      |  |
|----|----------------------|--|
| 1. | Type                 | Class X  |
| 2. | Slump                | Three Inches (3") to Five (5") Inches                                      |
| 3. | Air Entrainment      | Four percent (4%) to seven percent (7%) of concrete volume                 |
| 4. | Time                 | Maximum time from the addition of water to pouring is one (1) hour         |
| 5. | Compressive Strength | 3500 psi at fourteen (14) days   |
| 6. | Mix                  | Each cubic yard of concrete shall contain six (6) bags of Portland cement. |

### INSPECTIONS

Inspections are required by the Department of Public Works prior to pour and upon completion of pour. Existing manholes, water service boxes and valve boxes that are located within the area of the proposed public walk or private walk shall be checked for alignment and elevation by the Department of Public Works prior to pouring concrete. **All necessary adjustments shall be made by the building permit applicant.**

## GENERAL REQUIREMENTS

1. All concrete public walks shall be five inches (5") thick, except where a public walk crosses a driveway, at which location the concrete public walk shall be six inches (6") thick with wire mesh.
2. All public walks shall be scored at five foot (5') intervals, unless otherwise specified by the Department of Public Works.
3. Expansion joints shall be of preformed fiber and shall not displace when compressed. The joints shall be placed at intervals of not more than one hundred feet (100') and shall be placed where the proposed public walk abuts the curb, existing public walk, paved driveways, all manhole structures and lighting standards.
4. All public walk, curb and gutter scheduled for removal shall be saw cut to a minimum depth of one and one-half inches (1 ½") at each end prior to removal.
5. Each continuous pour of new public walk shall be stamped at each end by the contractor indicating contractor's name and the year of construction.
6. Saw cutting drives, where required, shall be through the entire depth of the asphalt.
7. Where granular embankment is specified, crushed gravel or stone conforming to the CA-6 gradation shall be used. Materials shall be compacted by roller or vibratory machinery approved by the Village.
8. Topsoil stripping for new public walks shall, in general, be six feet (6') in width and six inches (6") in depth, or to firm ground, as approved by the Village. Material designated for reuse shall be stored in convenient locations. The remainder shall be disposed of by the contractor.
8. The replacement or restoration of the parkway shall be accomplished by the contractor and approved by the Village. Sod or seed is required.
9. All materials not reused in the construction shall be disposed of off-site by the contractor within five (5) days of the completion of the public walk.
10. The Village Forester shall be consulted prior to any public walk construction within the dripline of any parkway tree. (Refer to Illustration below)



# ILLUSTRATION "A"

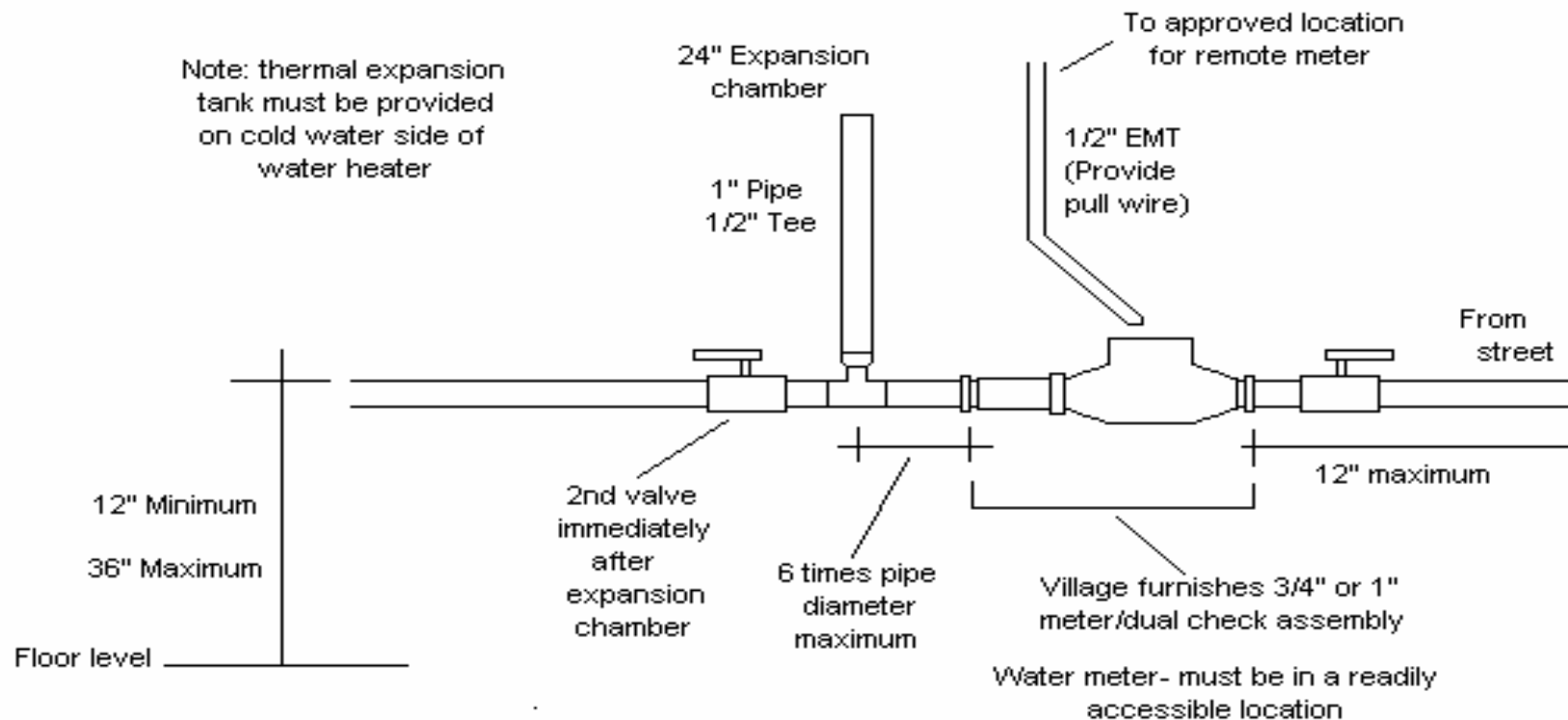
## Basic Residential Domestic Water Service without Fire Sprinkler System (3/4" and 1" Meters)

Meter spreads:

3/4"- 13" face-to-face, 3/4" female

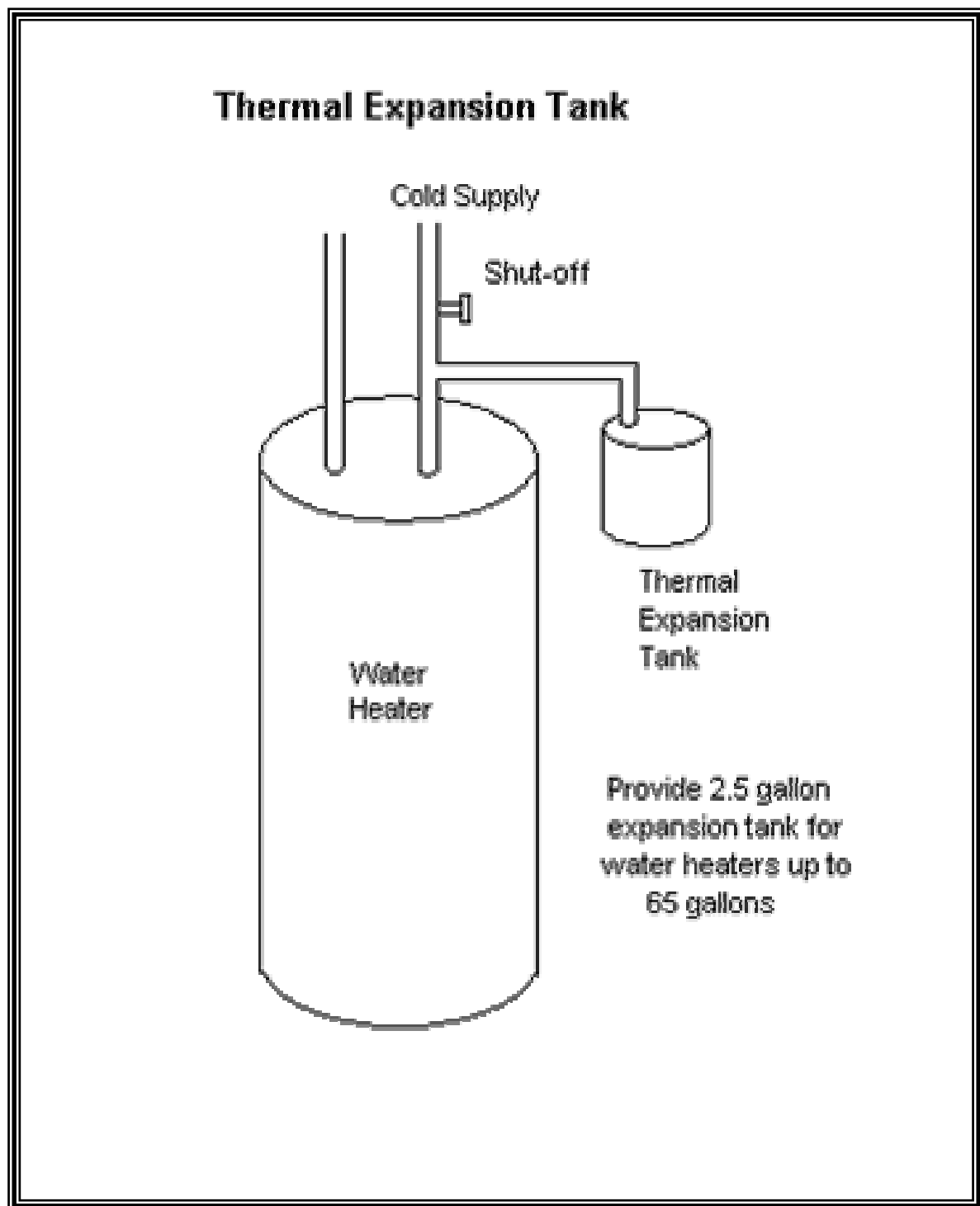
1"- 17-1/4" face-to-face, 1" female

Note: thermal expansion tank must be provided on cold water side of water heater



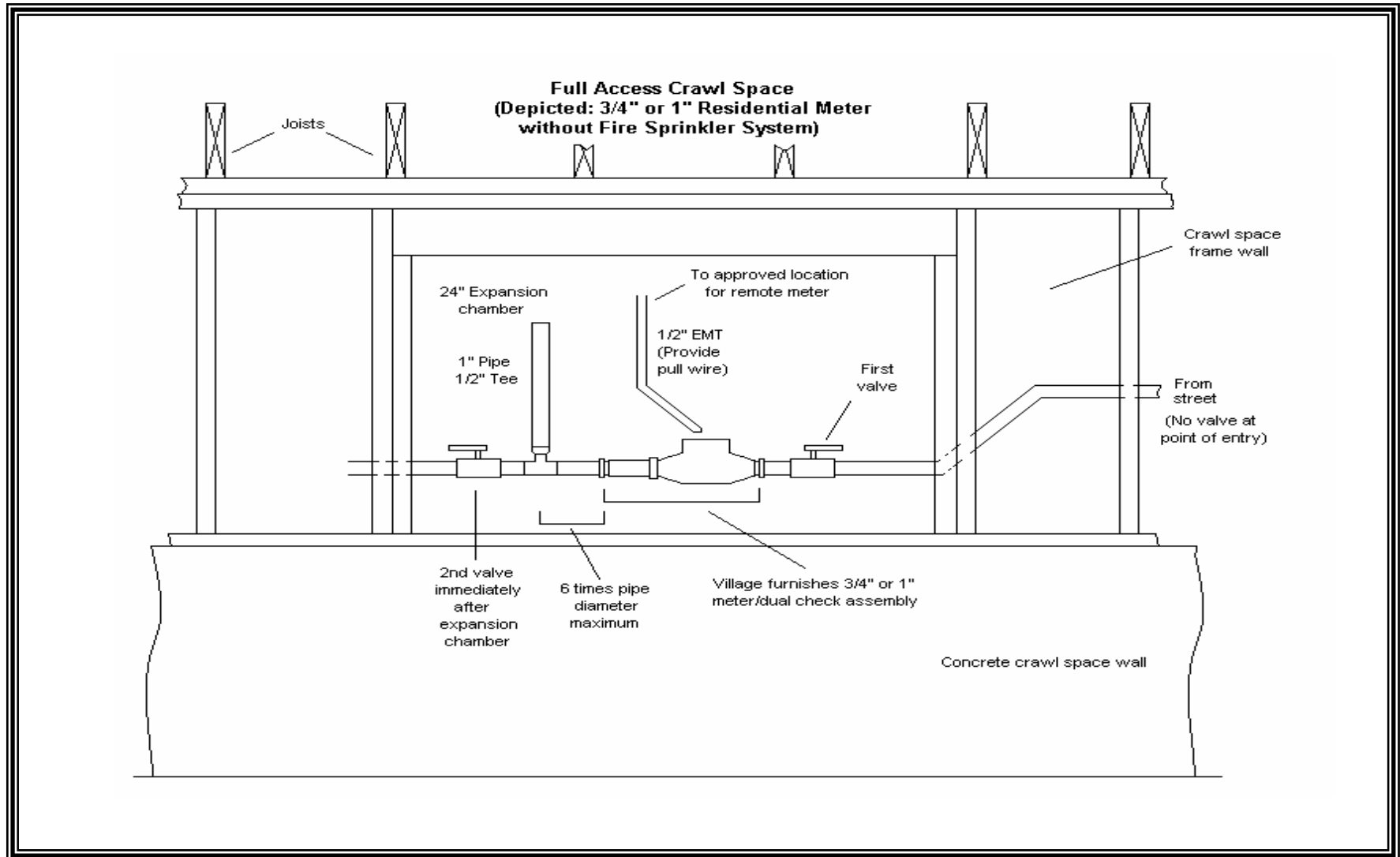


# ILLUSTRATION “A-1”



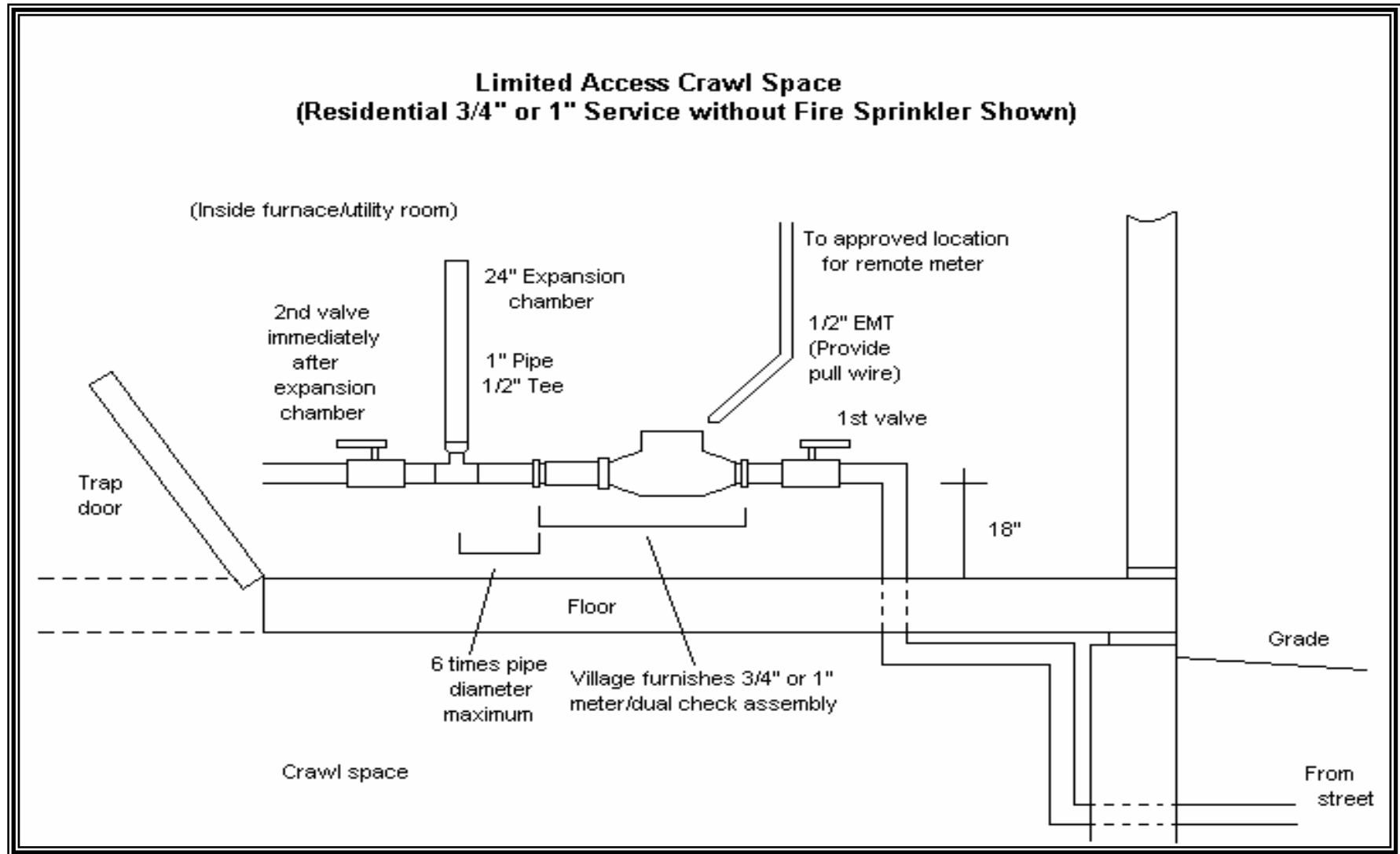


# ILLUSTRATION “B”



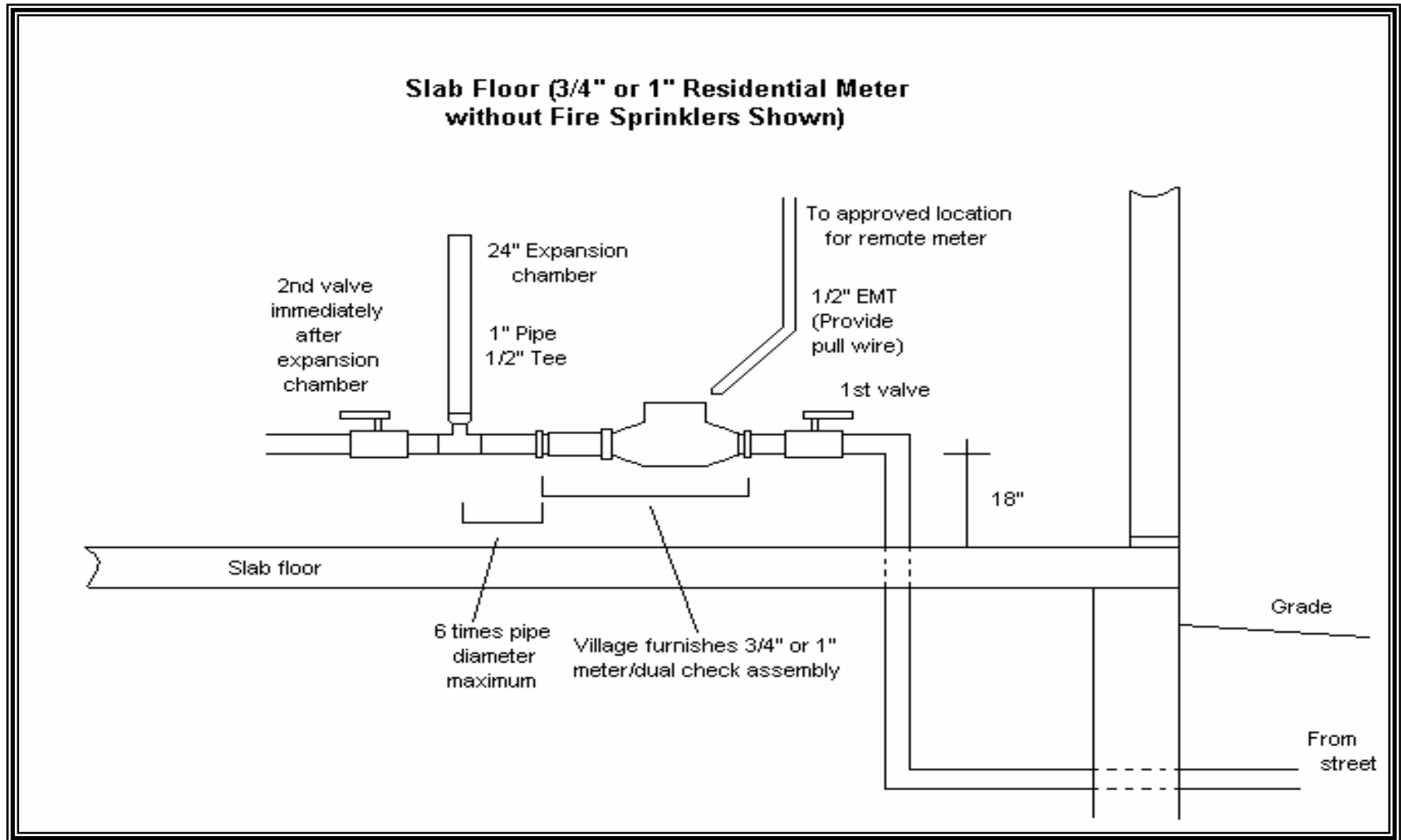


# ILLUSTRATION “C”



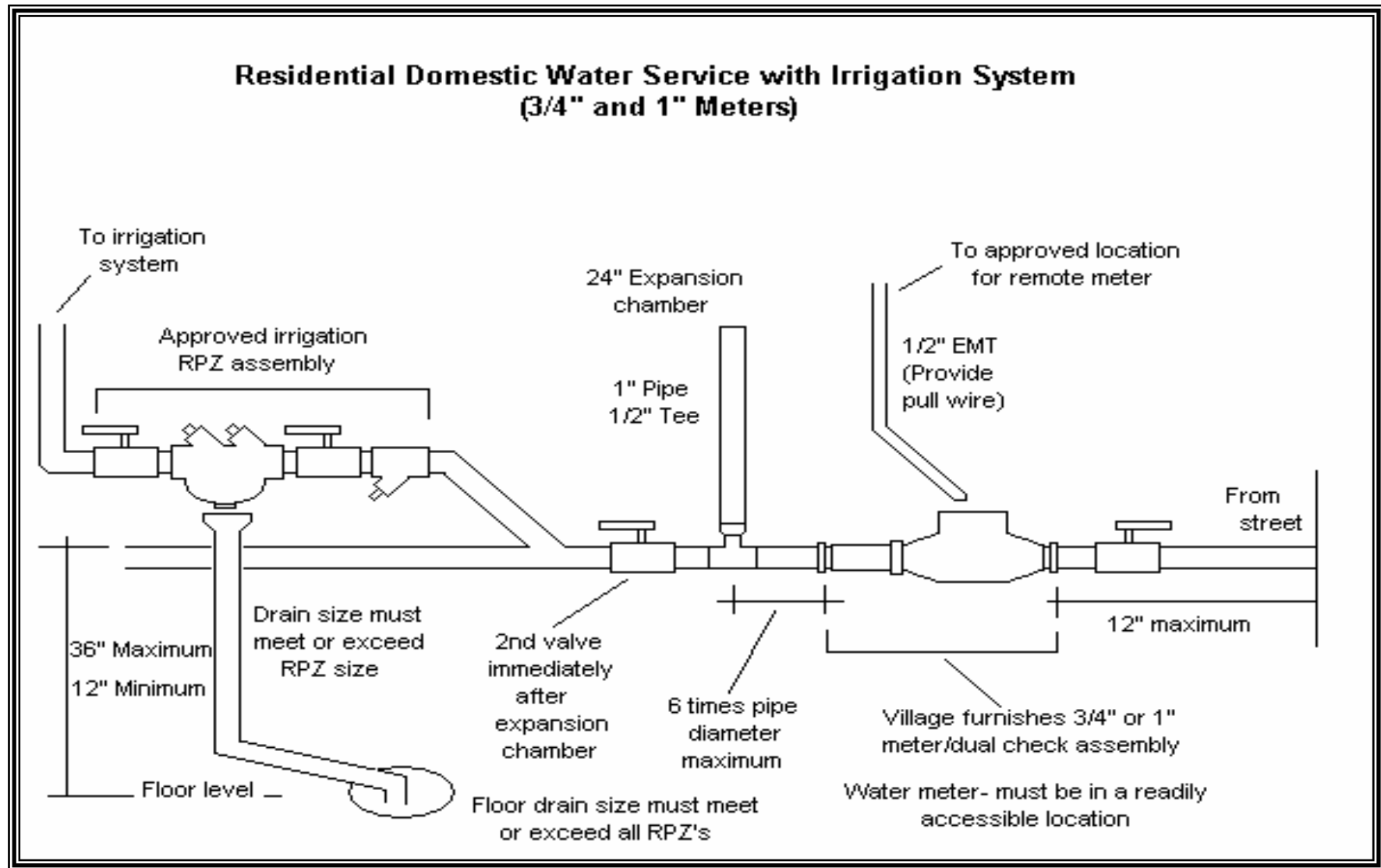


# ILLUSTRATION "D"





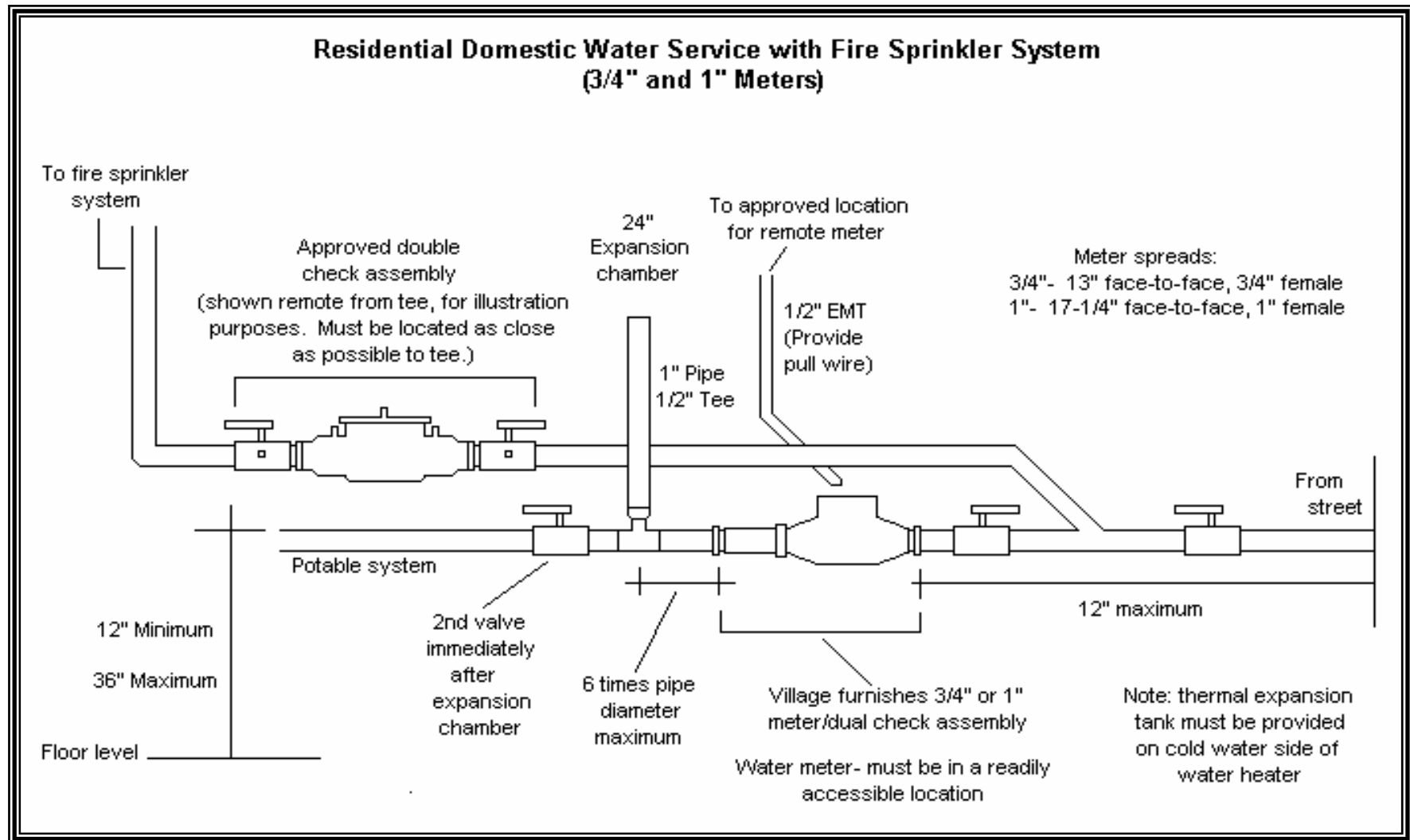
# ILLUSTRATION "E"





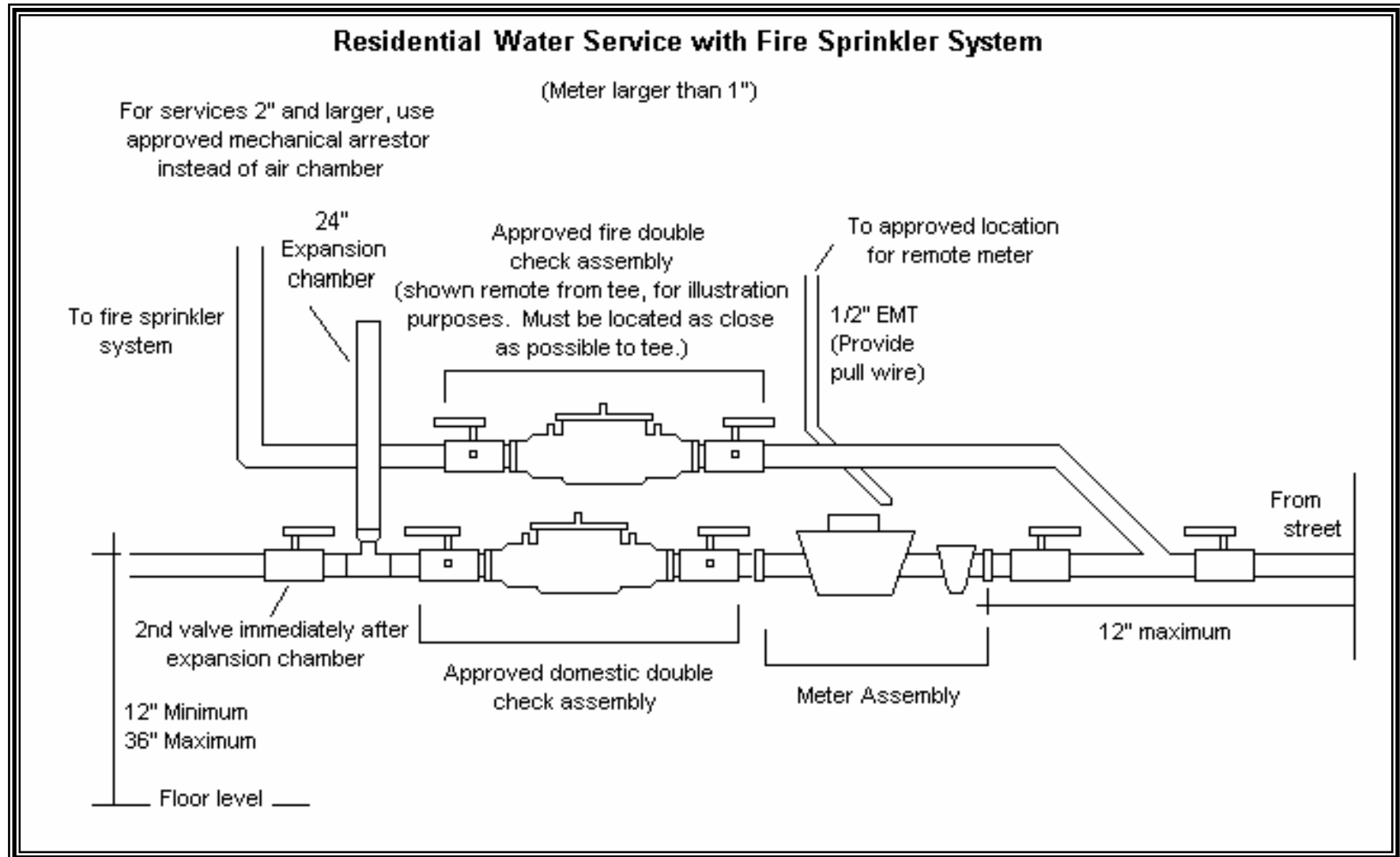


# ILLUSTRATION "F"





# ILLUSTRATION “G”

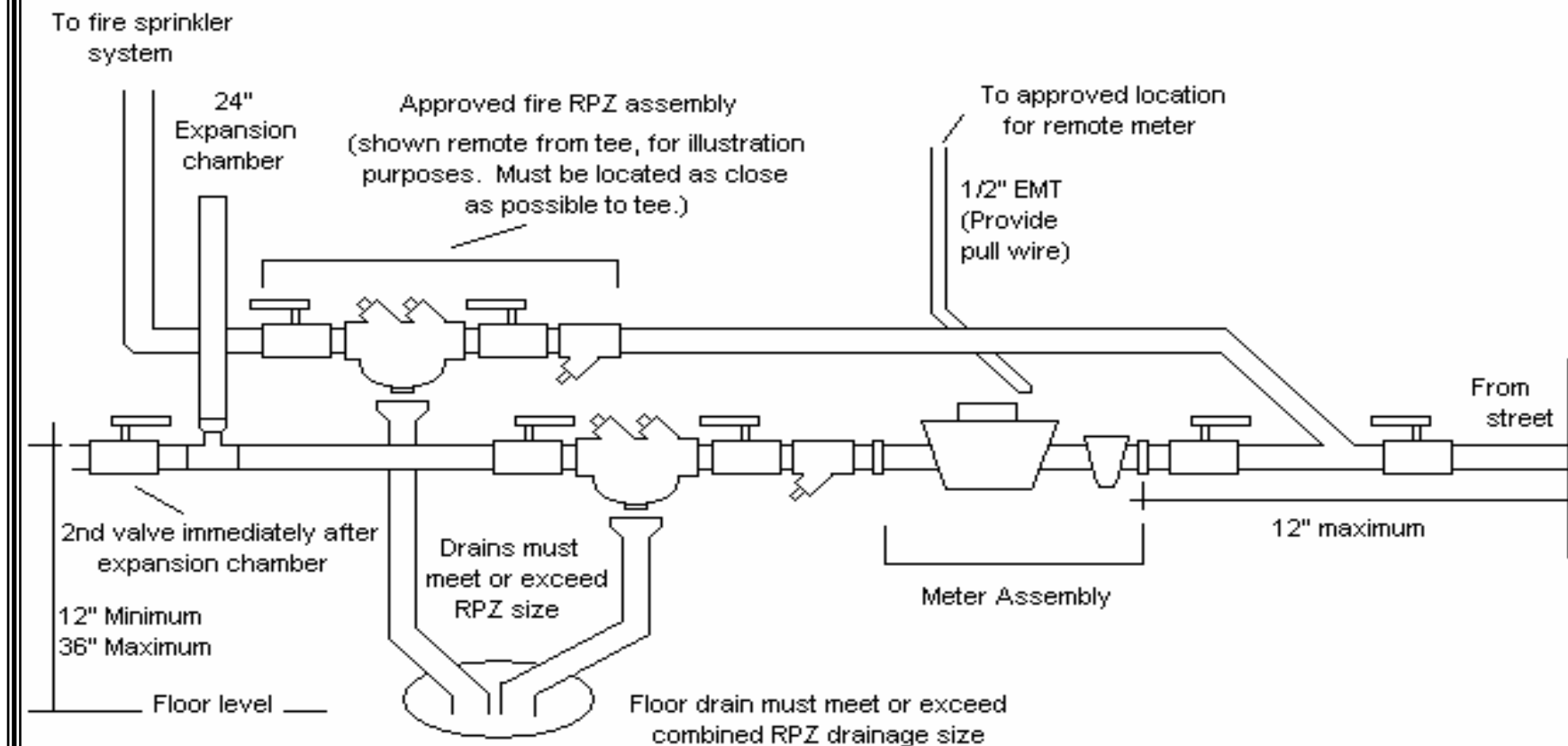




# ILLUSTRATION “H”

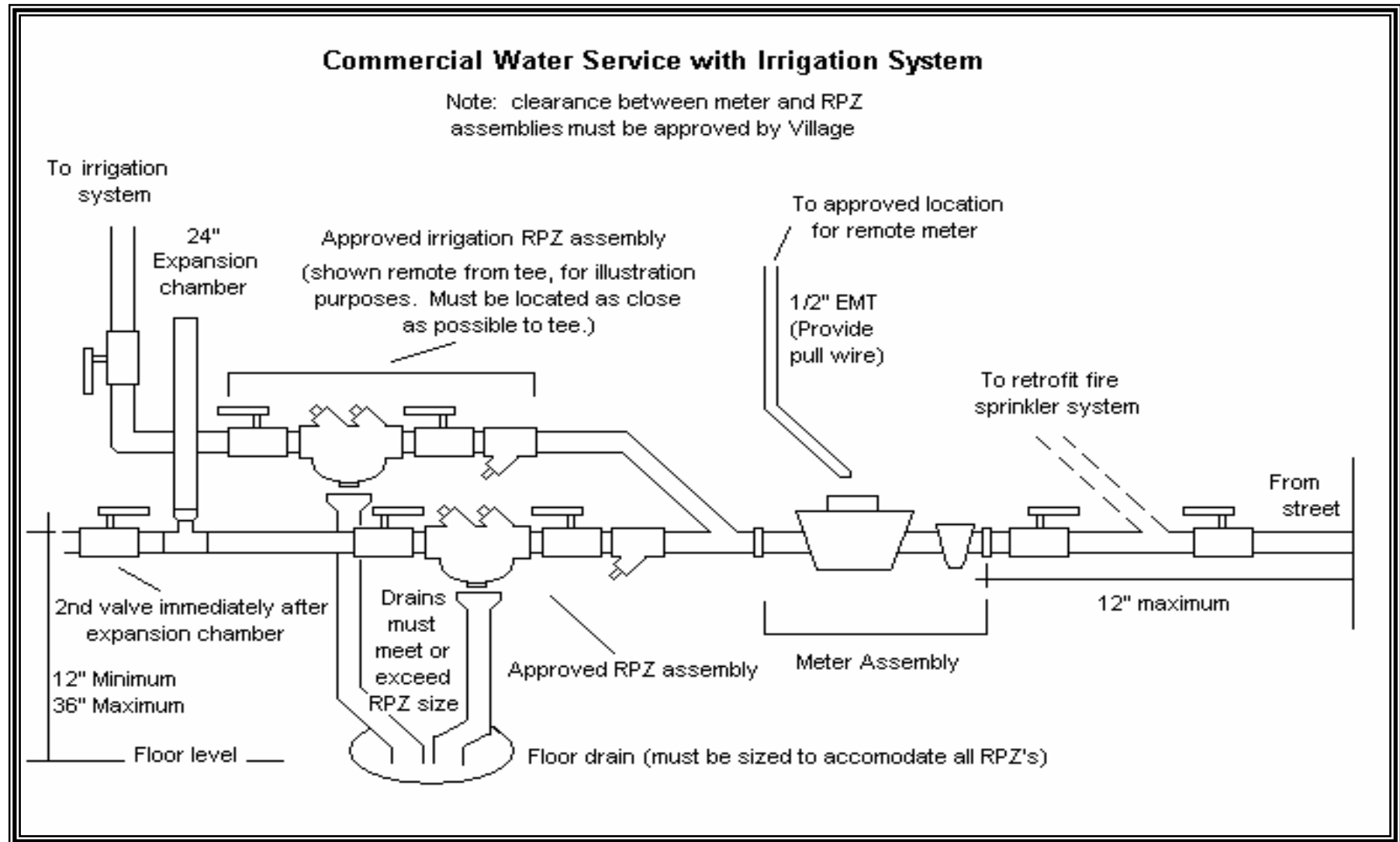
## Commercial Water Service with Fire Sprinkler System (Retrofit)

Note: clearance between meter and RPZ assembly must be approved by Village





# ILLUSTRATION “I”

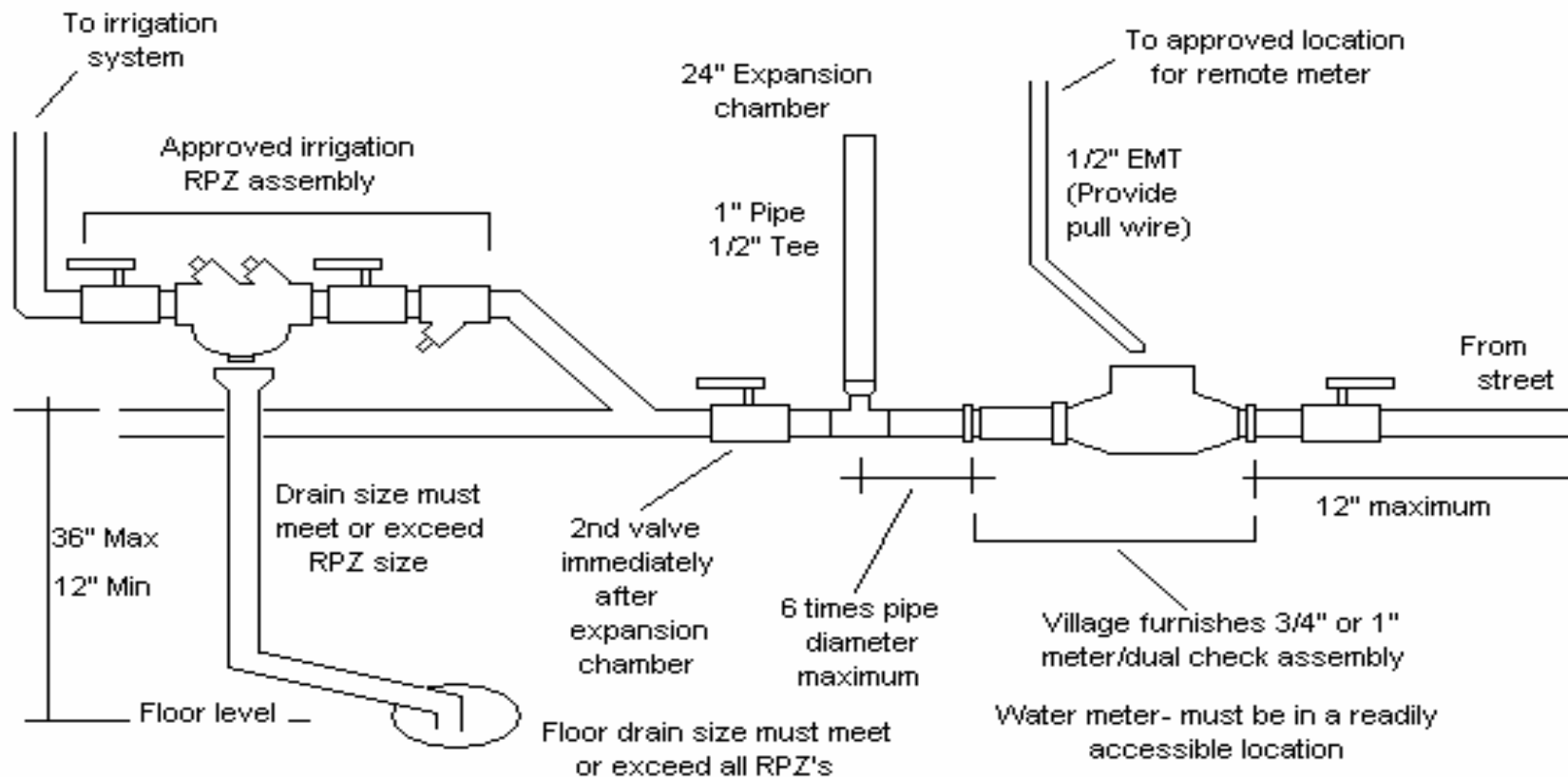






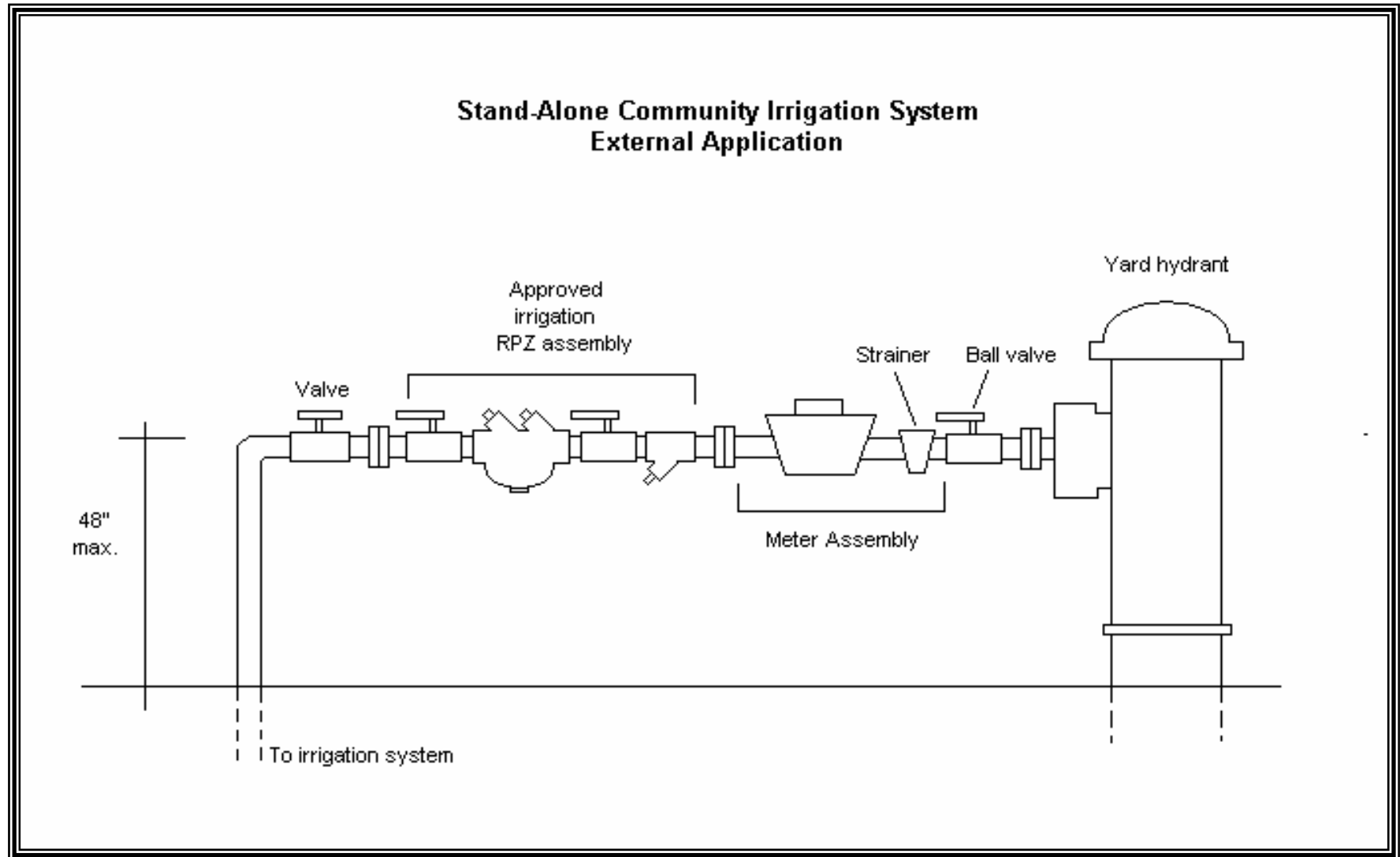
# ILUSTRATION “J”

## Residential Domestic Water Service with Irrigation System (3/4" and 1" Meters)

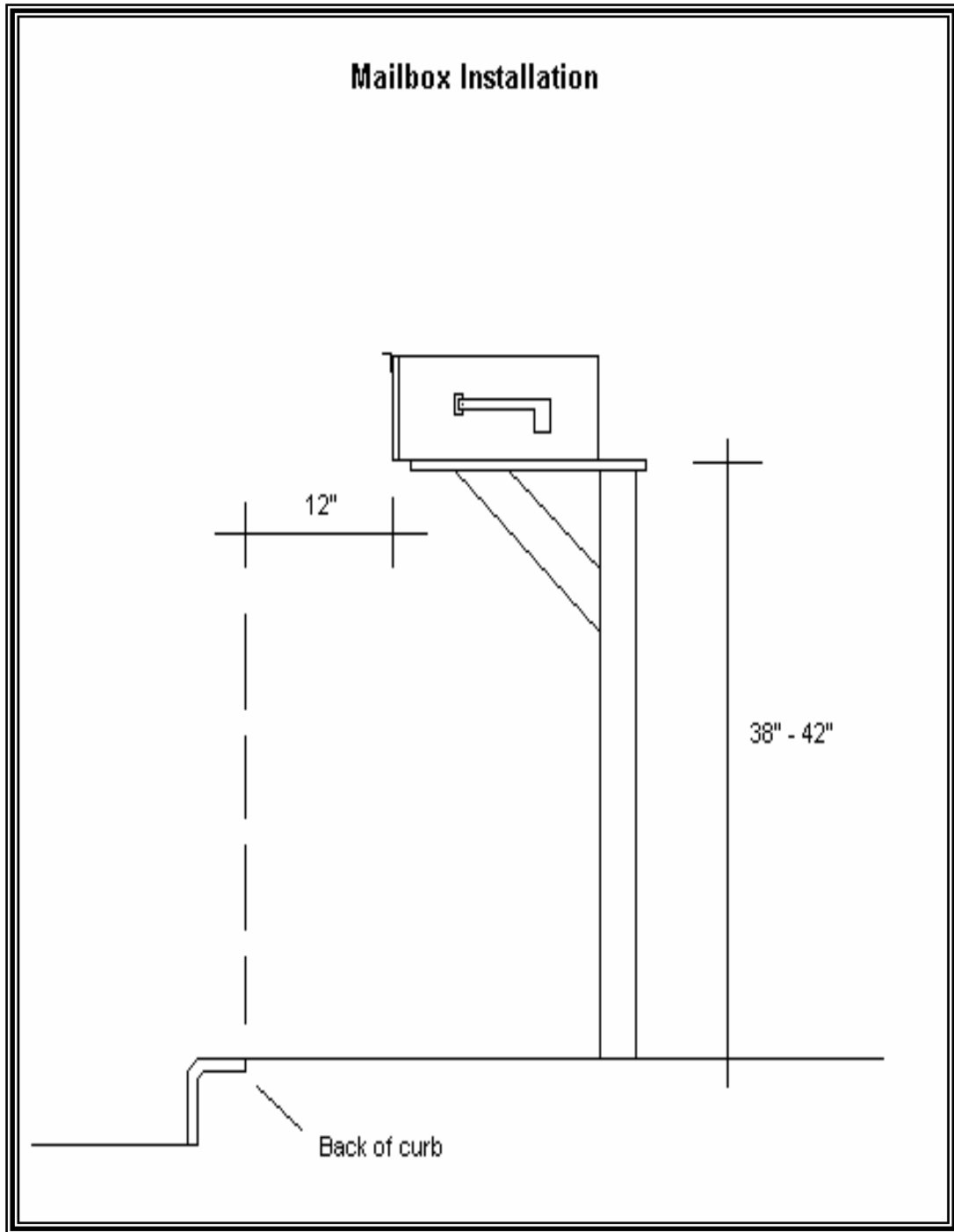




# ILLUSTRATION “K”



# ILLUSTRATION “L”



# ILLUSTRATION “M”

## Commercial Water Service with Fire Sprinkler System (New)

